National Institute of Environmental Health Sciences

Global demographic trends and future carbon emissions

Author(s): O'Neill BC, Dalton M, Fuchs R, Jiang L, Pachauri S, Zigova K
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Abstract:

Substantial changes in population size, age structure, and urbanization are expected in many parts of the world this century. Although such changes can affect energy use and greenhouse gas emissions, emissions scenario analyses have either left them out or treated them in a fragmentary or overly simplified manner. We carry out a comprehensive assessment of the implications of demographic change for global emissions of carbon dioxide. Using an energy-economic growth model that accounts for a range of demographic dynamics, we show that slowing population growth could provide 16-29% of the emissions reductions suggested to be necessary by 2050 to avoid dangerous climate change. We also find that aging and urbanization can substantially influence emissions in particular world regions.

Source: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2955139

Resource Description

Climate Scenario :

specification of climate scenario (set of assumptions about future states related to climate)

Special Report on Emissions Scenarios (SRES)

Special Report on Emissions Scenarios (SRES) Scenario: SRES A2, SRES B2

Exposure :

weather or climate related pathway by which climate change affects health

Air Pollution, Unspecified Exposure

Geographic Feature:

resource focuses on specific type of geography

None or Unspecified, Urban

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Co-Benefit/Co-Harm (Family Planning/Population Reduction):

specification of beneficial or harmful impacts to health resulting from efforts to promote family planning or reduce population growth as a climate change adaptation or mitigation measure

A focus of content

Health Impact:

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Mitigation

Model/Methodology:

type of model used or methodology development is a focus of resource

Cost/Economic

Resource Type:

format or standard characteristic of resource

Research Article

Socioeconomic Scenario: Other Socioeconomic Scenario

Other Socioeconomic Scenario: Population- Environment-Technology model

Timescale:

time period studied

Medium-Term (10-50 years)